

PATENT COOPERATION TREATY

PCT

REC'D 24 JAN 2005

WIPO

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 60469-094	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US03/39076	International filing date (day/month/year) 09 December 2003 (09.12.2003)	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC IPC(7): B66B 7/02 and US Cl.: 187/406		
Applicant OTIS ELEVATOR COMPANY		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>3</u> sheets.</p> <p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 08 September 2004 (08.09.2004)	Date of completion of this report 09 December 2004 (10.12.2004)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Eileen D. Lillis Telephone No. 703-308-1113	

Form PCT/IPEA/409 (cover sheet)(July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/39076

I. Basis of the report1. With regard to the **elements** of the international application:*

- ☐ the international application as originally filed.
- ☒ the description:
pages 1-7 as originally filed
pages NONE filed with the demand
pages NONE filed with the letter of _____.
- ☒ the claims:
pages NONE as originally filed
pages 8-10 as amended (together with any statement) under Article 19
pages NONE filed with the demand
pages NONE filed with the letter of _____.
- ☒ the drawings:
pages 1-4 as originally filed
pages NONE filed with the demand
pages NONE filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages NONE as originally filed
pages NONE filed with the demand
pages NONE filed with the letter of _____.

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☒ the claims, Nos. 2
- ☐ the drawings, sheets/fig NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/39076

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims <u>1-20</u>	<u>YES</u>
	Claims <u>NONE</u>	<u>NO</u>
Inventive Step (IS)	Claims <u>1-20</u>	<u>YES</u>
	Claims <u>NONE</u>	<u>NO</u>
Industrial Applicability (IA)	Claims <u>1-20</u>	<u>YES</u>
	Claims <u>NONE</u>	<u>NO</u>

2. CITATIONS AND EXPLANATIONS

Claims 1-20 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a guide rail for use in an elevator system comprising a first material body having a nose portion comprises aluminum and a second material secured to some of the nose portion comprises steel as recited in the amended claim 1. Further, the prior art also does not teach or fairly suggest a guide rail comprising a bonding agent to secure the second material to the nose, as recited in claim 8, or the nose portion has a guiding surface on opposite sides of the nose portion and a braking region near an end of the nose portion and wherein the second material is only on the braking region of the nose portion, as recited in claim 10, or the nose portion extends away from the base portion at an oblique angle, as in claim 13.

----- NEW CITATIONS -----

CLAIMS

We claim:

1. A guide rail (24) for use in an elevator system, comprising:
a first material body having a nose portion (32); and
a second material (40) secured to at least some of the nose portion, wherein
the first material comprises aluminum and the second material comprises steel.
2. The guide rail (24) of claim 1, wherein the second material establishes a
covering (40) that extends along an entire longitudinal length of the guide rail
covering at least some of the nose portion (32).
3. The guide rail (24) of claim 1, wherein the second material comprises a steel
sheet (40) that is shaped to conform to the nose portion (32) and including a bonding
agent (42) between the steel sheet and the nose portion.
4. The guide rail of claim 1, wherein the nose portion (32) includes at least one
recess (50) and the second material has a portion (52) extending at least partially into
the recess.
5. The guide rail of claim 1, including an insulating layer (60) between the nose
portion (32) and the second material.
6. The guide rail of claim 5, wherein the insulating layer (60) comprises a fiber
mesh.
7. The guide rail of claim 6, wherein the mesh (60) comprises a glass fiber fabric.
8. A guide rail (24) for use in an elevator system, comprising:
a first material body having a nose portion (32);
a second material (40) secured to at least some of the nose portion; and
a bonding agent (42) securing the second material to the nose portion.
9. The guide rail (24) of claim 8, wherein the bonding agent (42) comprises at
least one of an adhesive or concrete.

10. A guide rail (24) for use in an elevator system, comprising:
a first material body having a nose portion (32); and
a second material (40) secured to at least some of the nose portion, wherein the nose portion (32) has a guiding surface (34) on opposite sides of the nose portion and a braking region near an end (36) of the nose portion and wherein the second material is only on the braking region of the nose portion (32).
11. The guide rail (24) of claim 10, wherein the second material is a covering (40) that comprises a steel sheet extending over the braking region on each side of the nose portion (32).
12. The guide rail (24) of claim 11, wherein the covering (40) extends along an entire longitudinal length of the nose portion (32).
13. A guide rail (24) for use in an elevator system, comprising:
a first material body having a nose portion (32); and
a second material (40) secured to at least some of the nose portion, wherein the body comprises a base portion (30) that is adapted to be secured to a stationary structure and the nose portion (32) extends away from the base portion at an oblique angle.
14. A method of making a guide rail (24) for use in an elevator system, comprising:
forming a rail body using a first material that comprises aluminum; and
covering at least a portion of the rail with a second material that comprises steel.
15. The method of claim 14, including forming an elongated clip (40) comprising the second material and subsequently placing the clip over the corresponding portion of the rail body.
16. The method of claim 14, including forming some of the second material to extend into at least one recess (50) on the rail body.

17. The method of claim 14, including installing the rail body in a hoistway and subsequently moving a tool (100) along the installed rail body to secure the second material covering (40) in place.
18. The method of claim 17, including using an automated robot (100) that climbs the rail.
19. A method of making a guide rail (24) for use in an elevator system, comprising:
forming a rail body using a first material;
covering at least a portion of the rail body with a second material; and
securing the second material to the rail body using a bonding agent (42).
20. A method of making a guide rail (24) for use in an elevator system, comprising:
forming a rail body using a first material;
covering at least a portion of the rail body with a second material; and
forming the rail body to have a base (30) and a nose portion (32) and orienting the nose portion at an oblique angle relative to the base.